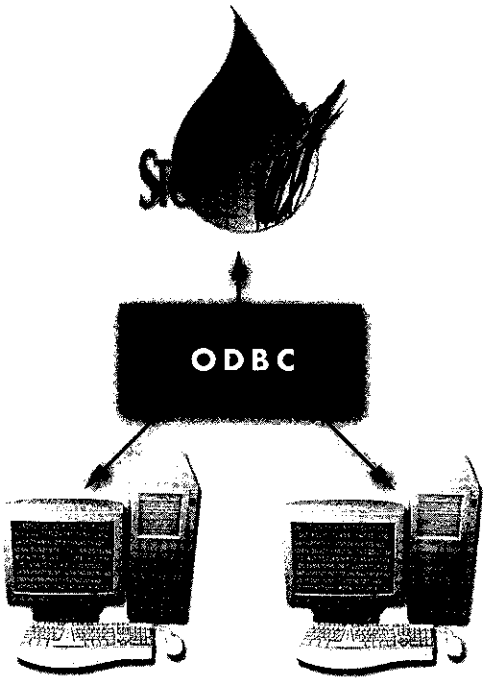
# STORET

## Connecting STORET with Other Applications using ODBC

*STORET is a U.S. Environmental Protection Agency (EPA) database of ambient environmental data relating to water quality. The original STORET was developed in the 1960s, and today the system continues to serve as EPA's principal repository for marine, freshwater, and biological monitoring data. STORET is currently used by a variety of groups, including federal agencies, states, tribes, local governments, academic groups, watershed and volunteer monitoring organizations, and the public.*




STORET, EPA's water quality data repository, provides a standard data structure and data entry tools for water quality data. STORET also has its own set of reporting modules for agencies to use. However, agencies involved in water quality monitoring and assessment activities often need to incorporate their STORET data into other software tools, such as Microsoft Access or ESRI's ArcGIS, to create custom queries, maps, or reports. Agencies may also need to import their data into statistical software packages such as SAS. Open Database Connectivity (ODBC) addresses this challenge by providing a method for transferring data between software packages.

ODBC is an interface that enables programs to access data in database management systems that use Structured Query Language (SQL) as a data access standard. Software applications that are "ODBC compliant" can seamlessly exchange data. This means that all ODBC-compliant applications can read and analyze STORET data without having to extract or convert data into a compatible form. ODBC can be used to:

- Link STORET tables into database management applications, such as Microsoft Access, SQL Server, or Paradox.
- Analyze STORET data with query or reporting tools such as BrioQuery or Crystal Reports to create charts, construct ad hoc queries, and perform drill-down analyses.
- Make maps or perform spatial analysis with STORET data in geographic information systems (GIS) applications, such as ArcGIS.
- Create business graphics or pivot tables with Microsoft Excel.
- Perform statistical analysis with SAS, StatView, or other statistical software.

## How can I use ODBC with STORET?

Because STORET is an Oracle-based system, and Oracle is ODBC compliant, the capability to use ODBC is inherent in the STORET system. STORET contains several data views that facilitate the use of ODBC (see below). These data views allow you to access the data in STORET without detailed knowledge of the underlying database table structure. STORET data tables can also be accessed directly through ODBC. How this capability is set up depends on the installation, operating system, and applications that will use ODBC (see inset).

## Setting up an ODBC driver in Windows 2000/XP

1. From Start/Settings/Control Panel/Administrative Tools, double click "Data Sources (ODBC)."
2. Choose the System DSN tab. Click "Add."
3. Choose a driver. For Oracle databases, choose the Oracle ODBC driver.
4. In the driver set-up dialog box, enter "STORET" for the data source and service names, and your STORET user ID (e.g., STORUSER) for the USERID. See your administrator or contact the STORET hotline if you need assistance.

## Some useful data views in STORET

| | |
|---|---|
| **All Activity Details** (STORUSER.ALL_ACTIVITY_DETAILS) | Provides information related to [illegible] organization, trip, station, procedure, and [illegible] |
| **All Regular Results** (STORUSER.ALL_REGULAR_RESULTS) | Provides [illegible] physical characteristics |
| **All Station Details** (STORUSER.ALL_STATION_DETAILS) | Provides information related to [illegible] geographical and geodetic [illegible] data |
| **All Station Visit Details** (STORUSER.ALL_STATION_VISIT_DETAILS) | Provides information related to [illegible] |
| **All Project Details** (STORUSER.ALL_PROJECT_DETAILS) | Provides project definitions, project [illegible] assignments, and associated [illegible] weight information |
| **All Habitat Results** (STORUSER.ALL_HABITAT_RESULTS) | Provides information related to habitat assessments, including system-defined and user-defined [illegible] |
| **All Biological Single Taxon Individual Results** (STORUSER.ALL_BIO_GROUP_SIT_RESULTS) | Provides single taxon individual [illegible] |
| **All Biological Non-Single Taxon Individual Results** (STORUSER.ALL_BIO_GROUP_NON_SIT_RESULTS) | Provides multi-taxon population [illegible] group summary, and single taxon frequency class [illegible] |
| **All Biological Tissue Results** (STORUSER.ALL_BIO_TISSUE_RESULTS) | Provides individual and tissue [illegible] |

## Where can I get help using ODBC with STORET?

You may need to work with your database/network administrator to configure ODBC for your installation. For more information, visit the STORET Web site, **www.epa.gov/STORET**, or contact the EPA STORET assistance hotline at 1-800-424-9067 or at STORET@epa.gov.

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# STORET Import Module (SIM)

*STORET is a U.S. Environmental Protection Agency (EPA) database of ambient environmental data relating to water quality. The original STORET was developed in the 1960s, and today the system continues to serve as EPA's principal repository for marine, freshwater, and biological monitoring data. STORET is currently used by a variety of groups, including federal agencies, states, Tribes, local governments, academic groups, watershed and volunteer monitoring organizations, and the public.*

## What is the STORET Import Module (SIM)?

SIM, the STORET Import Module, is a software program that helps users quickly and conveniently load data into STORET. Both STORET and SIM are applications that can be installed on a personal desktop computer or in a client/server environment. SIM allows the user to describe the format of the data being imported, ensures that the data are consistent with STORET's requirements, and migrates the data into STORET.

SIM has tools for importing the following types of data:

- Project information
- Station descriptions, including locations and well information
- Sample and field measurement results
- Biological sample results.

## Why use SIM?

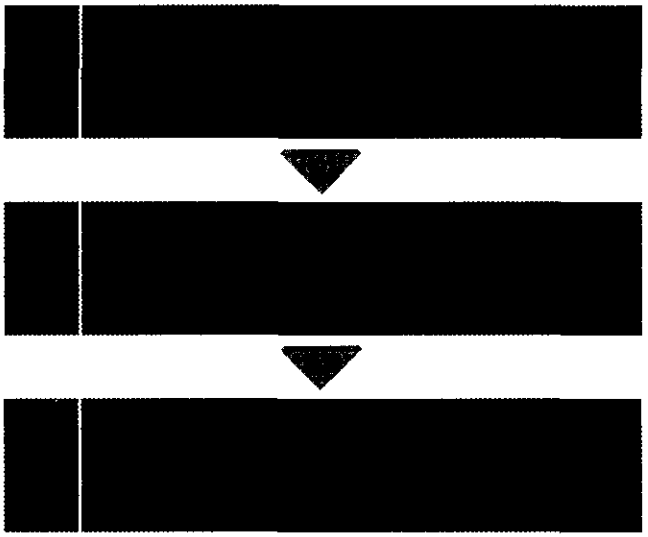
SIM makes it easier to import large amounts of data into STORET from existing data management systems. Data managed using common software products, such as Microsoft Excel, Microsoft Access, or Lotus 1-2-3, can easily be exported to files that SIM can read. The user specifies the format of the data in SIM, and SIM checks to make sure the data are compatible with STORET before migration. SIM can be customized to allow efficient migration of subsequent data.


*SIM lets users import water quality data into STORET from existing data management systems. Once data are migrated into a local copy of STORET, they can be sent to the National STORET Warehouse.*

## Who should use SIM?

Anyone who needs to load large amounts of data into STORET from existing data management systems can benefit from using SIM. SIM can be used by anyone working with STORET, including federal agencies, states, tribes, local governments, academic groups, watershed organizations, and citizens.

## Using SIM: A three-step process



## Features of SIM

SIM provides **a number of tools** that can assist in importing data to STORET. When describing the data import configuration, SIM identifies required data elements to avoid errors caused by missing data. SIM allows the user to define default values when certain data are missing. SIM also permits the user to specify standard data formats for numeric data, such as latitude and longitude coordinates. If a data set includes values that are not valid in STORET, SIM can set translations that will convert data to values that STORET recognizes. SIM can save all these "preferences" as a configuration format that can be used again or edited for a slightly different import format.

SIM is **easy to navigate**, either by selecting items from drop-down menus or clicking buttons on forms. Also, each form in SIM gives helpful information specific to that form.

When data are imported using SIM, SIM **identifies problems** with the data file and lets the user view the data. If there are problems, the user can delete the data from SIM and re-import a corrected file. If the user realizes there is a mistake in the data set after it has been migrated to STORET, SIM allows the removal of the data set with a single click.

## What is needed to run SIM?

A computer configured to run STORET already has the hardware, operating system, and database software needed to run SIM. The additional requirements are 30 MB of hard drive space to install the SIM product in a client/server mode, or 250 MB to load a stand-alone version of SIM.

## How is SIM acquired?

SIM can be downloaded from the STORET Web site at www.epa.gov/STORET.

## Where is help with SIM available?

For more information about SIM, visit the STORET web site, **www.epa.gov/STORET**, or contact the EPA STORET assistance hotline at

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